



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/671,846

09/25/2003

Eugene George Olczak

133074-1

8697

22428 7590 12/31/2007
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/671,846

Applicant(s)

OLCZAK ET AL.

Examiner

Alicia Chevalier

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13, 29-33 and 35-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-13, 29-33 and 35-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/15/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

RESPONSE TO AMENDMENT

Request for Continued Examination

1. The Request for Continued Examination (RCE) under 37 CFR 1.53 (d) filed on October 15, 2007 is acceptable and a RCE has been established. An action on the RCE follows.
2. Claims 2-13, 29-33 and 35-38 are pending in the application, claims 1, 14-28 and 34 have been cancelled.
3. Amendments to the claims, filed on October 15, 2007, have been entered in the above-identified application.

REJECTIONS

4. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 103

5. Claims 2-13, 29-33 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath (U.S. Patent No. 4,025,159) in view of Nilsen et al. (U.S. Patent No. 5,657,162).

McGrath discloses a multiplayer optical film (*cellular retroreflective sheeting, title*). The film comprises at least two component films (*bass sheet and cover film, col. 3, lines 25-26*). At least one of the component films (*bass sheet*) has an upper and lower surface (*figure 3*). The upper surface comprises a series of optical structures (*mircospheres, col. 3, line 33*) and a plurality of raised spacing structures (*narrow intersecting bonds, col. 3, line 26*). The lower

surface is essentially planar (*figure 3*). The component films are joined so as to constitute a single structure comprising at least one gap disposed between the component films (*figure 3*).

Furthermore, the gap is deemed to be greater than the coherent length of light used to illuminate the optical film since the reference discloses that same height for the spacing structures as claimed by Applicant. See the discussion below regarding claim 7. Furthermore, Applicant's specification on page 7, paragraph [0020] recites that the gap between surfaces should be greater than the coherent length of the light source, typically no less than a few microns.

McGrath fails to disclose that there is a second component film.

Nilsen discloses a retroreflective article with multiple prism locations (*title*). Figure 5 shows that multiple layers of retroreflective sheeting can be stacked to create different design patterns (*col. 5, lines 13-60*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to stack multiple layers of McGrath as taught by Nilsen in order to create different design patterns.

When layers of McGrath are stacked they will create the claim first and second component film structural arrangement.

The preamble/limitation "backlighting display" is deemed to be a statement with regard to the intended use and is not further limiting in so far as the structure of the product is concerned. In article claims, a claimed intended use must result in a ***structural difference***

between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. MPEP § 2111.02.

McGrath discloses that the optical structures are convex and concave structures (*microspheres, col. 3, line 33 and figure 3*). McGrath discloses that the optical structures are prisms, since the reference discloses cube-corner elements can be interchangeable used with the microspheres (*col. 6, lines 13-20 and figure 7*). McGrath discloses that the raised spacing structures comprise at least one post-structure and/or at least one beam structure (*narrow intersection bonds, col. 3, line 26 and figures 1, 3 and 7*). McGrath discloses that the spacing structures have a height relative to the optical structures between about 0.1 and about 20 microns, since the reference shows in figure 3 that the spacing structure, i.e. narrow intersection bonds, have a height of half the diameter of the optical structures, i.e. microspheres, and the diameter of the microspheres is between 10 and 200 micrometers (*col. 5, lines 29-30*), which means that the height of the narrow intersection bonds is between 5 to 100 microns. McGrath discloses that the raised spacing structures comprise at least one post-structure (*narrow intersection bonds, col. 3, line 26 and figures 1, 3 and 7*). McGrath discloses that the component films have a thickness between about 0.006 and about 5 millimeters, since the reference discloses that the base sheet has a thickness of 75 micrometers (*col. 6, lines 60-61*) and the cover film has a thickness between 1 and 5 mils (*col. 5, line 14*), which together have a thickness of 100.4-203 micrometers or 0.1 to 0.2 mm. McGrath discloses that the gap comprises solid matter, fluid matter and combinations thereof, since the reference discloses that air, i.e. a fluid, in the gaps (*col. 3, lines 23-30*). McGrath discloses that the raised spacing structures have either equal or unequal heights relative to the optical structures (*figures 3 and 7*). Figure 3 in McGrath shows

that the raised spacing structures occupy an area, the area is deemed to define a percentage of a total area of the film surface upon which the raised spacing structures are disposed.

Furthermore, it can be seen from figure 1 that the percentage is in the range between about 1 and about 50.

ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments in the response filed April 18, 2007 regarding the 35 U.S.C. 103(a) rejection over McGrath in view of Nilsen of record have been carefully considered but are deemed unpersuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that McGrath does not disclose a first and second back lighting the components. As stated above in the rejection the examiner agrees.

Applicant further argues that Nilsen does not cure the deficiencies of McGrath. Applicant specifically points out that even if McGrath and Nilsen were combined, the combination does not suggest both a first backlighting display component film and a second backlighting display component film having an upper surface comprising a series of optical structures, where raised spacing structures of the first backing display component film contact the lower surface of the second backlighting display component film.

The combination of McGrath and Nilsen does disclose the claimed "where raised spacing structures of the first backing display component film contact the lower surface of the second

backlighting display component film.” The structure of stacking McGrath would have the cover layer as part of the second backlighting display component films therefore the raised spacing structures of the first backing display component film contact the lower surface of the second backlighting display component film. However, since the claim uses open language, e.g. comprising, additional layers are permissible in the component.

Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ac

12/26/07


ALICIA CHEVALIER
PRIMARY EXAMINER